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The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT, the Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to: ans-editor [at] amsat [dot] org.

You can sign up for free e-mail delivery of the AMSAT News Service Bulletins via the ANS List; to join this list see: https://mailman.amsat.org/postorius/lists/ans.amsat.org/<%20https:/mailman.amsat.org/postorius/lists/ans.amsat.org/>

ANS-110 AMSAT News Service Weekly Bulletins

To: All RADIO AMATEURS
From: Radio Amateur Satellite Corporation
712 H Street NE, Suite 1653
Washington, DC 20002

DATE 2025 APR 20

Volunteer for Engineering Drawings Needed

As the AMSAT engineering team prepares to build an engineering prototype of its GOLF 3U CubeSat with deployable solar panels, its mechanical engineers could use a bit of help creating drawings for the satellite solar panels, antennas, and associated small parts. You will work directly with the engineer who created the parts.

When asked to make a drawing, the engineer will provide you with the AutoCAD Inventor file of the part plus the assembly model where the part is used. From the assembly model you can learn the function of the assembly and the role of-the part in the assembly. This information will help you determine how to dimension the part and chose tolerances so that it is machined properly. Also, the engineer will provide written instructions for guidance and be available to answer questions.

If you have some spare time to create about 20 drawings, each consisting of a latch, spring, bushing, structural post, antenna mount, PCBs, etc., AMSAT engineers could use your help to stay on schedule. The time estimate that a drawing might require is 1-3 hours of time. Their modelling software is AutoCAD Inventor. They can provide access to an Inventor license if you need it.

For more information please send your email with a short description of your experience to volunteer

[at] amsat [dot] org.

[ANS thanks AMSAT for the above information.]

The 2025 AMSAT President’s Club coins are here now!
Celebrating the 40th Anniversary of Amateur Radio on Human Spaceflight
Help Support GOLF and Fox Plus

[2025 PC Coin Set]

Join the AMSAT President's Club today and help
Keep Amateur Radio in Space!
https://www.amsat.org/join-the-amsat-presidents-club/

AMSAT at Hamvention 2025 - Volunteer at the AMSAT Booth
The 2025 Dayton Hamvention will be held at Greene County Fairgrounds in Xenia, OH on May 16-18, 2025! AMSAT will have our usual robust presence and after-hours activities. (AMSAT is one of the larger exhibitors at Hamvention, occupying booths 1007-1010 & 1107-1110 in Building 1.

[cid:image002.png(a)01DBB11A.9E17D670]

AMSAT is actively seeking volunteers to assist with booth activities and invites enthusiasts to dedicate their time. Last year, around 20 volunteers played crucial roles in fostering meaningful interactions with attendees. Volunteers, whether able to commit a few hours or the entire weekend, are warmly encouraged to participate.

For those eager to be part of AMSAT's presence at Dayton Hamvention or request more information about volunteering, contact Phil Smith, W1EME, AMSAT Hamvention Team Leader.

To volunteer or inquire further, individuals can reach out to Phil via email at w1eme [at] astrocom [dot] net. Your involvement not only enriches the event but also contributes to the vibrant amateur radio community.

[ANS thanks AMSAT for the above information.]

AMSAT Forum on Saturday, May 17th
The AMSAT Forum will take place in Forum Room 2 at 1:35 PM - 3:10 PM EDT on Saturday, May 17th. This will immediately follow the ARISS Forum in the same room at 12:40 PM EDT, so get there early and see both presentations!

[ANS thanks AMSAT for the above information.]

TAPR/AMSAT Banquet on Friday, May 16th
The 16th annual TAPR/AMSAT Banquet will be held at the Kohler Presidential Banquet Center on Friday, May 16th at 18:30 EDT. This dinner is always a highlight of the TAPR (Tucson Amateur Packet Radio) and AMSAT (Radio Amateur Satellite Corp.) activities during the Dayton Hamvention. This year’s banquet speaker will be Phil Karn, KA9Q, who will highlight developments and use cases for his ka9q-radio software suite.

The Kohler Presidential Banquet Center is located at 4548 Presidential Way, Kettering, Ohio – about 20 minutes away from the Greene County Fairgrounds.

Tickets ($70 each) may be purchased from the AMSAT store at
https://www.amsat.org/product/2025-tapr-amsat-friday-night-banquet-registration/.

The banquet ticket purchase deadline is Monday, May 12th at 17:00 EDT / 21:00 UTC. Banquet tickets must

be purchased in advance and will not be sold at the AMSAT booth. There will be no tickets to pick up at the AMSAT booth. Tickets purchased on-line will be maintained on a list with check-in at the door at the banquet center.

Seating is limited to the number of meals reserved with the Kohler caterers based on the number of tickets sold by the deadline.

[ANS thanks AMSAT for the above information.]

Need new satellite antennas?
Purchase M2 LEO-Packs from the AMSAT Store.

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When you purchase through AMSAT, a portion of the proceeds goes towards
Keeping Amateur Radio in Space.
https://amsat.org/product-category/hardware/

AMSAT Dinner at Tickets - Thursday, May 15th
The annual AMSAT “Dinner at Tickets” party will be held at Tickets Pub & Eatery on Thursday, May 15th from 6:00 PM to 8:00 PM EDT. There is no program or speaker – just good conversation. Everyone is invited regardless of whether or not they helped with setup or plan to work in the booth.

Tickets has a great selection of Greek and American food and great company! Food can be ordered from the menu; drinks (beer, wine, sodas and iced tea) are available at the bar.
Come as you are; no reservations required. Bring some friends and have a great time the night before Hamvention. Tickets Pub & Eatery is located at 7 W. Main St, Fairborn, OH 45324. (Telephone (937) 878-9022).

[ANS thanks AMSAT for the above information.]

Sonate-2 SSTV Scheduled
Kees Habraken, PD2CH, reports on Discord that Sonate-2 will transmit SSTV from April 18-20. Two images are transmitted sequentially at these times. Due to unforeseen circumstances, the scheduled times may change at short notice.

[cid:image010.png(a)01DBB12C.9F725830]

A detailed operating schedule can be seen on the SSTV pulldown at https://www.informatik.uni-wuerzburg.de/en/space-technology/projects/active/sonate-2/information-for-radio-amateurs/.

[ANS thanks Kees Habraken, PD2CH,   for the above information.]

Want to fly the colors on your own grid expedition?
Get your AMSAT car flag and other neat stuff from our Zazzle store!

[cid:image004.png(a)01DBB11A.9E17D670]

25% of the purchase price of each product goes towards
Keeping Amateur Radio in Space
https://www.zazzle.com/amsat_gear

Changes to AMSAT TLE Distribution for April 18, 2025
Two Line Elements or TLEs, often referred to as Keplerian elements or keps in the amateur community, are the inputs to the SGP4 standard mathematical model of spacecraft orbits used by most amateur

tracking programs. Weekly updates are completely adequate for most amateur satellites. TLE bulletin files are updated daily in the first hour of the UTC day. New bulletin files will be posted immediately after reliable elements become available for new amateur satellites. More information may be found at https://www.amsat.org/keplerian-elements-resources/.

The following satellites have been added to this week's AMSAT TLE distribution:

HYDRA-W NORAD Cat ID 63490
HADES-ICM NORAD Cat ID 63492

Please note that Two/Three Line Element (TLE or 3LE) sets for spacecraft launched in the near future will not be available, and new formats will be used instead. The essence of the problem is that the US Space Force is running out of five digit numbers to catalog new satellites, see https://celestrak.org/NORAD/documentation/gp-data-formats.php for details.

AMSAT will continue to disseminate TLE for satellites currently in orbit indefinitely as we do now, but we seek comments regarding the best way to support the amateur satellites of the future.
For example, is there any need to augment the weekly e-mail with a new list in one or more of the new formats or is on line access via www.celestrak.org<http://www.celestrak.org> or www.amsat.org<http://www.amsat.org> sufficient? Please send your comments using the form at www.amsat.org/webmaster-contact/<http://www.amsat.org/webmaster-contact/> on the AMSAT web site.

[ANS thanks Joe Fitzgerald, KM1P, AMSAT Orbital Elements Manager, for the above information.]

Results of Fram2Ham Competition Announced
Rabea Rogge, LB9NJ/KD3AID, has announced the three teams that scored the highest in the Fram2Ham SSTV competition for students.

[cid:image005.png(a)01DBB11A.9E17D670]

"Dear @everyone,
first of all: Thank you to everyone participating! It was such fun seeing the engagement and having this direct connection to you all on the ground – literally. These were the best moments on the mission: sending down the pictures, looking down at Earth and knowing that there is someone right there looking up at the same moment. We have seen great submissions to the SSTV gallery and quiz submissions. Without further ado, the three teams that scored the highest are the following:

1st Place – Grand Prize: Team ARISStocats! Active countries: Lithuania, Italy, US (Pennsylvania), Switzerland, US (California)
2nd Place: Team W1HLO-LA1K! Active countries: US (Connecticut), Norway, US (Pennsylvania), Germany
3rd Place: Team GuufyFram! Active countries: Greece, US (Pennsylvania), France, US (Kentucky), US (New York)

"The winning teams will be contacted by email in the next days.

"Well done everyone – we loved to see that all the teams were very international. My hope is that some friendships have formed, the passion for technology has been kindled and that most of all everyone had fun.

"For everyone who is not listed above – don’t forget to claim your digital SSTV certificate! We are looking forward to seeing all the pictures of your setups and hearing the stories."
Further information on the Fram2Ham mission is available at https://amsat-uk.org/2025/04/01/fram2-mission-launched/.

[ANS thanks AMSAT-UK for the above information.]

AMSAT Remove Before Flight Key Tags Now Available
Yes, These are the Real Thing!

[cid:image006.jpg(a)01DBB11A.9E17D670]

Your $20 Donation Goes to Help Fly a Fox-Plus Satellite
Includes First Class Postage (Sorry – U.S. Addresses Only)
Order Today at https://www.amsat.org/product/amsat-remove-before-flight-keychain

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JPL Lays Off Its K-12 Education Team
For years, the K-12 education team at NASA's Jet Propulsion Laboratory worked to get students to see themselves. Now teachers lament how to fill the gap.
The team made hundreds of lesson plans around major space events. They facilitated workshops for teachers, created a high school internship, took meteor rocks to local campuses, and much, much more. All of these activities were meant to foster the next generation of STEM professionals.

[cid:image009.jpg(a)01DBB126.C411B510]
In 2018, JPL's K-12 education team was part of a group that won an Emmy for its coverage of the Cassini mission's Grand Finale at Saturn. (Courtesy NASA/JPL-Caltech)

But during the latest round of layoffs at JPL, the tiny team was among the 325 let go. And though some parts of the educational program remain, educators across the country mourn what was lost.

The program was for teachers, by teachers. Three of the K-12 education team's four members are former classroom teachers. That experience helped them know what to do – and what not to do – to make their materials useful. "We wanted to make sure that teachers didn't have to figure out how to get our stuff in," said Ota Lutz, former manager for STEM elementary and secondary education, and a former math teacher.
The education team served as a pipeline, taking the missions, discoveries, and engineering innovations that happened at JPL and turning them into resources for teachers.

The team's efforts proved fruitful. The JPL education website "drove about 30% of [the research center's] annual web traffic, to the tune of about a little over two million visits annually," Lutz said. Read the complete story at https://tinyurl.com/ANS-110-JPL-K12-Education.

[ANS thanks laist.com for the above information.]

ARISS NEWS
Amateurs and others around the world may listen in on contacts between amateurs operating in schools and allowing students to interact with astronauts and cosmonauts aboard the International Space Station. The downlink frequency on which to listen is 145.800 MHz worldwide.

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Completed Contacts

* Magnet Innovation Center, Inlet Beach, Florida, telebridge via AB1OC
The ISS callsign was NA1SS .
The crewmember is Nichole Ayers, KJ5GWI.
The ARISS mentor is David Jordan, AA4KN .
Contact was successful on Thursday April 17, 2025.

* Pan-African Citizen Science e-lab, Africa, telebridge via IK1SLD
The ISS callsign was OR4ISS.
The crewmember was Nichole Ayers, KJ5GWI.
The ARISS mentor is Peter Kofler, IN3GHZ
Contact was successful: Friday, April 18, 2025.

Upcoming Contacts

* Karabaglar Municipality Nasreddin Hodja Child Culture and Science Center, Izmir, Turkey, telebridge via IK1SLD

The ISS callsign is presently scheduled to be OR4ISS.
The scheduled crewmember is Takuya Onishi KF5LKS.
The ARISS mentor is Peter Kofler, IN3GHZ
Contact is go for: Tuesday, April 22, 2025 at 08:50:43 UTC.

  *   Kars on the Rideau School, Kars, Ontario, Canada, telebridge via AB1OC
The ISS callsign is presently scheduled to be NA1SS.
The scheduled crewmember is Nichole Ayers, KJ5GWI.
The ARISS mentor is Steven McFarlane, VE3TBD.
Contact is go for: Tuesday, April 22, 2025 at 13:28:02 UTC.

  *   Oakwood High School, Morgan Hill, CA, direct via KK6OAK
The ISS callsign is presently scheduled to be NA1SS.
The scheduled crewmember is Jonathan (Jonny) Kim, KJ5HKP.
The ARISS mentor is Charles Sufana, AJ9N.
Contact is go for: Friday, April 25, 2025 at 17:22:58 UTC

The crossband repeater continues to be active (145.990 MHz up {PL 67} & 437.800 MHz down). If any crewmember is so inclined, all they have to do is pick up the microphone, raise the volume up, and talk on the crossband repeater. So give a listen, you just never know.

The packet system is also active (145.825 MHz up & down).

As always, if there is an EVA, a docking, or an undocking; the ARISS radios are turned off as part of the safety protocol.

Note, all times are approximate. It is recommended that you do your own orbital prediction or start listening about 10 minutes before the listed time.

The latest information on the operation mode can be found at
https://www.ariss.org/current-status-of-iss-stations.html
The latest list of frequencies in use can be found at https://www.ariss.org/contact-the-iss.html

[ANS thanks Charlie Sufana, AJ9N, one of the ARISS operation team mentors for the above information.]

Upcoming Satellite Operations

  *   EI49; April 19-25
Paulo, PV8DX, and company will operate HD8G from grid EI49uf in the Galapagos Islands, April 19-25, using IO-86, RS-44, and possibly AO-07. Watch @HD8G on X.com for updates. Website is https://www.labre-rr.org/galapagos2025.html

  *   EP28; April 30-May 3
Mark Saurman, N8TLV, will be operating as VYØSAT in Gjoa Haven, Nunavut in northern Canada, grid EP28, from 30-April/2025 1840Z to 3-May/2025 1945Z, weather and logistics permitting. Watch @VO1ONE on X.com for updates.

A growing number of satellite rovers are currently engaged in sharing their grid square activations on https://hams.at. By visiting the website, you gain easy access to comprehensive information about the operators responsible for activating specific grid squares. Additionally, you have the ability to assess the match score between yourself and a particular rover for a given pass, while also being able to identify the upcoming satellite passes that are accessible from your location.

[ANS thanks Ian Parsons, K5ZM, AMSAT Rover Page Manager, and Alex Ners, K6VHF, for the above information.]

AMSAT Ambassador Activities
AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events.
[AMSAT Ambassador News Logo]

April 28 at 7 p.m. CDT
Denton County Amateur Radio Association (DCARA)
Denton Count Administrative Courthouse
1 Courthouse Drive
Denton, TX 76208
Also online. See https://dcara.net/club-calendar/ for link
AMSAT Ambassador: Tom Schuessler, N5HYP

May 16th thru 18th, 2025
Dayton Hamvention
Greene County Fair and Expo Center
210 Fairground Road
Xenia, OH 45385
https://hamvention.org/

June 21, 2025
Rochester Amateur Radio Association Hamfest 2025
Barnard Fire Field
410 Maiden Lane Rochester, NY 14616
AMSAT Ambassador: Don Rhodes, KB2YSI

Interested in becoming an AMSAT Ambassador? AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events. For more information go to: https://www.amsat.org/ambassador/

[ANS thanks Bo Lowrey, W4FCL, Director – AMSAT Ambassador Program for the above information.]

Satellite Shorts From All Over

* PD2CH Kees H. reports on Discord that Sonate-2 will transmit SSTV pictures from April 18 through April 21. Two images are transmitted sequentially at these times. Due to unforeseen circumstances, the scheduled times may change at short notice. The SSTV pulldown on the following link has a detailed schedule: More information at https://tinyurl.com/ANS-110-Sonate-2-SSTV. [ANS thanks Kees Habraken, PD2CH for the above information.

* SWL operators wishing to enter reception reports on the AMSAT Live OSCAR Satellite Status Page can now do so again. After the AMSAT IT team tightened up the security for the "Your Callsign" field, SWL identifiers were no longer allowed. At the request of SWL'er Christian Mayer, the IT team was able to accept callsigns in the format of "OE" followed by 8 numerical digits. AMSAT looks forward to many observations from the Styrian Mountains in Austria as well as the rest of the world. [ANS thanks Joe Fitzgerald, KM1P, AMSAT Information Technology, for the above information.]

Join AMSAT Today at https://launch.amsat.org/

In addition to regular membership, AMSAT offers membership to:

* Societies (a recognized group, clubs or organization).
* Primary and secondary school students are eligible for membership at one-half the standard yearly rate.
* Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status.
* Memberships are available for annual and lifetime terms.

Contact info [at] amsat [dot] org for additional membership information.

73 and remember to help Keep Amateur Radio in Space!
This week's ANS Editor, Frank Karnauskas, N1UW
f.karnauskas [at] amsat [dot] org

ANS-editor mailing list -- ans-editor@amsat.org
View archives of this mailing list at https://mailman.amsat.org/hyperkitty/list/ans-editor@amsat.org
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